

STATUS OF THE CLAIMS

What is claimed is:

1. (Currently Amended) A raised microstructure for use in a silicon based device, the raised microstructure comprising:
a generally planar thin-film plate having a periphery;
a ribbed sidewall, the ribbed sidewall including a plurality of ridges and grooves, the ridges and grooves extending about substantially the entire periphery and further being arranged substantially perpendicular to an edge of the thin-film plate defined by the periphery, the ribbed sidewall arranged to support the generally planar thin-film plate along the periphery;
wherein the plurality of ridges and grooves of the ribbed sidewall form at least one rib, and wherein the at least one rib stiffens the ribbed sidewall.
2. (Previously Presented) The raised microstructure of claim 1 wherein the ridges and grooves of the ribbed sidewall are parallel and equally spaced to form a corrugated sidewall.
3. (Original) The raised microstructure of claim 1 wherein the rib has a generally arcuate cross section.
4. (Previously Presented) The raised microstructure of claim 1 wherein the rib has a generally triangular cross section.

5. (Original) The raised microstructure of claim 1 wherein the rib has a generally rectangular cross section.
6. (Original) The raised microstructure of claim 1 wherein the thin-film comprises one plate of a silicon based capacitive transducer.
7. (Original) The raised microstructure of claim 1 wherein the thin-film comprises a rigid backplate of a silicon based microphone.
8. (Currently Amended) A silicon based electret microphone having a backplate comprising:
a generally planar thin-film plate having a periphery defining an edge of the thin-film plate;
a sidewall having a plurality of ridges and grooves, the sidewall arranged to support the thin-film plate, the ridges and grooves extending about substantially the entire periphery and further being arranged substantially perpendicular to the edge;
wherein the plurality of ridges and grooves of the sidewall cooperate to form at least one ribs about the periphery.
9. (Previously Presented) The microphone of claim 8 wherein the ridges and grooves of the ribbed sidewall are parallel and equally spaced to form a corrugated sidewall.

10. (Original) The microphone of claim 8 wherein the rib has a generally arcuate cross section.
11. (Previously Presented) The microphone of claim 8 wherein the rib has a generally triangular cross section.
12. (Previously Presented) The microphone of claim 8 wherein the rib has a generally rectangular cross section.
13. (Original) The microphone of claim 8 wherein the sidewall includes a plurality of ribs.
14. (Original) The microphone of claim 13, wherein the ribs are equally spaced about the sidewall.
15. (Currently Amended) A raised microstructure for use in a silicon based device, the raised microstructure comprising:
generally planar element with a first thickness and a periphery defining an edge;
a sidewall including a plurality of ridges and grooves, the sidewall having a second thickness;
said sidewall being substantially continuous about the entire periphery and
supporting said planar element at said periphery above a substrate at a distance;

wherein said plurality of ridges and grooves of the sidewall cooperate to form
a plurality of ribs.

16. (Original) The raised microstructure of claim 15 wherein said first thickness is small compared to the lateral extent of the said planar element.
17. (Original) The raised microstructure of claim 15 wherein said second thickness is approximately equal to the said first thickness.
18. (Original) The raised microstructure of claim 15 wherein said distance is large compared to said second thickness.
19. (Original) The raised microstructure of claim 15 wherein the ribs follow a periodic path of the periphery, inwards and outwards with respect to the centroid of the planar element.
20. (Original) The raised microstructure of claim 19 wherein the path is arcuate.
21. (Previously Presented) The raised microstructure of claim 1 wherein the sidewall substantially completely encloses the area beneath the thin-film.
22. (Previously Presented) The microphone of claim 8 wherein the sidewall substantially completely encloses the area beneath the thin-film.

23. (Previously Presented) The raised microstructure of claim 15 wherein the sidewall substantially completely encloses the area beneath the element.